

### **REMARKS**

This Amendment responds to the Office Action dated October 4, 2005 in which the Examiner objected to claims 16 and 29, rejected claims 8-14, 28, 37 and 39 under 35 U.S.C. §101 and rejected claims 1-29 and 36-39 under 35 U.S.C. §103.

As indicated above, claims 16 and 29 have been canceled without prejudice. Therefore, applicants respectfully request the Examiner withdraws the objection to claims 16 and 29.

As indicated above, claims 8 and 28 have been amended to be directed to statutory subject matter and dependent claims have been amended accordingly. Therefore, applicants respectfully request the Examiner withdraws the rejection to claims 8-14, 28, 37 and 39 under 35 U.S.C. §101.

Claims 1 and 17 claim a demand-supply scheme planning apparatus and claims 8 and 28 claim a demand-supply scheme planning method implemented on a computer. The apparatus and method includes calculating a profitability index of a supply chain based on scheme data regarding order receipt, order placement, purchase and shipment.

Through the structure and method of the claimed invention calculating a profitability index of a supply chain based on order receipt, order placement, purchase and shipment, as claimed in claims 1, 8, 17 and 28, the claimed invention provides a demand-supply scheme planning apparatus and method which increases corporate profit and contributes to future expansion of reduction in the demand supply chain. The prior art does not show, teach or suggest the invention as claimed in claims 1, 8, 17 and 28.

Claims 1-4, 6-11, 13-17, 19-29 and 36-39 were rejected under 35 U.S.C. § 103 as being unpatentable over *Lilly et al.* (U.S. Patent No. 5,787,000) in view of *Sellers et al.* (U.S. Patent No. 5,311,438).

Applicants respectfully traverse the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, for reasons will be set forth below, Applicants respectfully request the Examiner withdraws the rejection to the claims and allows the claims to issue.

*Lilly et al.* appears to disclose a computerized system is provided for scheduling a plurality of work orders in a manufacturing process. Each work order to be scheduled specifies a set of operations to be performed using a plurality of resources and materials. Data including resource availability information for each resource used in the manufacturing process, material availability information for each material used in the manufacturing process, and work order information is received and stored in a computer. The work order information includes a release date for the work order, a want date for the work order, operations information, and material requirements information. The operations information includes the identity and sequence of operations to be performed for the work order, the identity of the resources needed to perform each operation, a minimum resource capacity needed to perform each operation, and the time needed to perform the operation. The materials information includes the identity of the materials needed to perform each operation and the quantity of each material needed for the operation. Resource capacity and a start date/time and a finish date/time are assigned to each operation based upon the resource availability information, the material availability information, and the work order information. The assigned resource capacity, the assigned start

date/time, and the assigned finish date/time for each operation are displayed on a computer screen in a graphical format. (abstract)

Thus, *Lilly et al.* merely discloses scheduling work orders for manufacturing products in a manufacturing process. Nothing in *Lilly et al.* shows, teaches or suggests calculating a profitability index of a supply chain based upon scheme data regarding order receipt, order placement, purchase and supply as claimed in claims 1, 8, 17 and 28. Rather, *Lilly et al.* merely discloses a computerized system for scheduling work orders for manufacturing products in a manufacturing process.

*Sellers et al.* appears to disclose a manufacturing system utilizes a common database structure and product definition to achieve true integration of multiple systems. The production definition includes an item and specification to define material or resources used in or related to a manufacturing process. The item identifies the material or resources, and the specification describes its performance specifications. Multiple manufacturing systems each utilize the same common database structure and product definition for processing data. These systems may include an Environmental, Health, Safety & Training system to manage environmental and health aspects of the manufacturing process. A New Product Development system may also be integrated with the common database to facilitate and automate the process of developing new products. The true integration of manufacturing systems allows full communication among the systems and automates many functions, such as generating reports and monitoring of hazardous materials and agents. (abstract) The Create and Submit A Request conversation (PD03) may be used to define a request for a new product and submit the request to a selected business manager. The list screen may be used to select an unsubmitted

design request for modification or choose to create a new request. The detail screens in this conversation may be used to document the business case for the requested effort. Enter customer and prospective marketplace information, existing competitors, reasons for the request, and the detailed end-product specifications as either required or desired by the customer. If desired, enter additional comments about the request. After submitting a design request, the system sends an electronic mail message to notify the appropriate business manager. (col. 71, lines 32-47)

Use the Design Request Financial Analysis conversation (PD19) to create, maintain, and review various financial simulations associated with for a design request. A list screen displays all of the financial simulations currently defined in the system. Use first detail screen in this conversation to document the expected investment outlays and estimated operating cash flows over the entire economic life of the new product. Also document the assumptions and cost estimates used to determine the cash flows on this screen. The second detail screen contains results of a present value analysis applied to the estimates entered on the first screen. This analysis provides some basic financial parameters such as the net present value, profitability index, internal rate of return, and the present value payback period (col. 113, lines 32-49).

PURPOSE: To browse the results of a present value analysis applied to the estimated investments and cash flows. These results include the net present value, profitability index, and internal rate of return. Also use this screen to review financial comments and estimated costs (col. 114, lines 31-36).

Thus, *Sellers et al.* merely discloses at column 114, lines 31-36, results of a present value analysis include the net present value, profitability index and internal rate of return. However, nothing in *Sellers et al.* shows, teaches or suggests how the

profitability index is calculated. Furthermore, *Sellers et al.* does not show, teach or suggest what the profitability index, if calculated, is based upon. In other words, nothing in *Sellers et al.* shows, teaches or suggests calculating a profitability index based on scheme data regarding order receipt, order placement, purchase and supply, as claimed in claims 1, 8, 17 and 28. Rather, *Sellers et al.* merely discloses that the results of the present value analysis include a profitability index but *Sellers et al.* does not show, teach or suggest how the index is calculated.

The combination of *Lilly et al.* and *Sellers et al.* would merely suggest to schedule work orders to manufacture a product as taught by *Lilly et al.* and to determine the results of a present value analysis including a profitability index as taught by *Sellers et al.* Thus nothing in the combination of *Lilly et al.* and *Sellers et al.* shows, teaches or suggests calculating a profitability index based on scheme data regarding order receipt, order placement, purchase and supply as claimed in claims 1, 8, 17 and 28. Therefore, applicants respectfully request the Examiner withdraws the rejection to claims 1, 8, 17 and 28 under 35 U.S.C. §103.

Claims 2-4, 6-7, 9-11, 13-15, 19-27 and 36-39 depend from claims 1, 8, 17 and 28 and recite additional features. Applicants respectfully submit that claims 2-4, 6-7, 9-11, 13-15, 19-27 and 36-39 would not have been obvious within the meaning of 35 U.S.C. §103 over *Lilly et al.* and *Sellers et al.* at least for the reasons as set forth above. Therefore, Applicants respectfully request the Examiner withdraws the rejection to claims 2-4, 6-7, 9-11, 13-15, 19-27 and 36-39 under 35 U.S.C. §103.

Claims 5, 12 and 18 were rejected under 35 U.S.C. §103 as being unpatentable over *Lily et al.* and *Sellers et al.* and further in view of *Edstrom et al.* (U.S. Patent No. 5,233,533).

Applicants respectfully traverse the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, Applicants respectfully request the Examiner withdraws the rejection to the claims and allows the claims to issue.

As discussed above, since the combination of the primary references do not show, teach or suggest the primary features as claimed in claims 1, 8, 17 and 28, Applicants respectfully submit that the combination of the primary references with the secondary reference to *Edstrom et al.* will not overcome the deficiencies of the primary references. Therefore, Applicants respectfully request the Examiner withdraws the rejection to claims 5, 12 and 18 under 35 U.S.C. §103.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested. Should the Examiner find that the application is not now in condition for allowance, applicants respectfully request the Examiner enters this Amendment for purposes of appeal.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge  
our Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL PC

By:

  
Ellen Marcie Emas  
Registration No. 32,131

Date: January 3, 2006

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(703) 836-6620